Applications Due: May 30, 1997

Technology Innovation Challenge Grant Program

Technology Innovation Challenge Grants*

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Office of Educational Research and Improvement

U.S. Department of Education

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* Technology Innovation Challenge Grants are the next generation of an initiative that began as the Challenge Grants for Technology in Education, and they are counterparts of the new Technology Literacy Challenge Fund.

THE CHALLENGE

How can we use new technology and the information superhighway to improve education and increase economic competitiveness? Modern computers and telecommunication networks are powerful tools. But the hardware alone is not enough to improve learning. Sustained professional development for teachers and effective software, well integrated with the curriculum, are essential to help students meet high academic standards.

This is an ambitious challenge. We are experiencing a scientific and technological revolution of unprecedented proportions. Everywhere we look, technology is changing the way we work and live. Everywhere, that is, but in our classrooms. In the information age, we have industrial era schools. In classrooms that could be modern communication centers for learning, the basic media of instruction are blackboards and chalk.

Community leaders and educators are excited about the possibilities for transforming their classrooms into information age learning centers, but few school systems can afford the costs and risks associated with developing new, high quality applications of technology on their own. Similarly, few school systems working alone, have all the expertise and resources they need to integrate these learning innovations into the curriculum on a system-wide basis. Technology Innovation Challenge Grants provide seed money to form community partnerships that can bear these costs and marshal these resources. These consortia bring telecommunications, hardware and software expertise to schools in combination with the educational resources of universities, research institutes, libraries and museums.

As catalysts for change, Technology Innovation Challenge Grants support educators and parents, industry partners, community leaders and others who are collaboratively developing new applications of technology to transform their factory era schools into information age learning centers. Some of the most exciting possibilities might flow from a creative synthesis of ideas generated by teachers and students, who are working with software developers and cognitive researchers in consortia that include: telecommunication firms and hardware manufacturers, entertainment producers, and others who are stretching our thinking about how to create new learning communities.

Technology Innovation Challenge Grants have the potential to improve education by building on computer and telecommunication

advances that create powerful new ways to discover knowledge and exchange information. We learn more when we are solving challenging problems in meaningful contexts. Our mastery of new knowledge becomes stronger when we actively collaborate with others to communicate our understanding of what we have learned. The extent of learning and the effectiveness of teaching need no longer be limited by the amount of time in the classroom or by the resources of a particular school. Teachers and students can tap vast electronic libraries and museums with a wealth of texts, video images, music, arts and languages. They can work with scientists and scholars around the globe who can help them use experimental research, primary historical documents, and authentic learning in real life settings to improve their understanding of physical phenomena and world events.

Technology Innovation Challenge Grant consortia need not be limited by geography. The information superhighway creates new possibilities for extending the time, the place, and the resources for learning. It can bring high quality education and training to every classroom, workplace, and home in the community at any time of day. The information superhighway can be used to create new learning communities linking schools, colleges, libraries, museums, and businesses across the country or around the world.

Technology Innovation Challenge Grant consortia are encouraged to act on their most ambitious visions for technology in education reform. But, we must not become a society in which students from low income communities, and other areas in need of technology, are left behind in the acquisition of knowledge and skills for responsible citizenship and productive work in the 21st century. Failure to include these communities will put their future, and the future of the country, at risk. In awarding Technology Innovation Challenge Grants, the U.S. Secretary of Education will evaluate the extent to which the proposed project is designed to serve areas with a high number or percentage of disadvantaged students or the greatest need for educational technology.

WHO CAN APPLY FOR A TECHNOLOGY INNOVATION CHALLENGE GRANT?

Potential applicants should be aware that Technology Innovation Challenge Grants are highly competitive awards. In 1995 there were 530 applicants for 19 grants. In 1996 a total of 586 applicants competed for 24 grants. **At the time of this announcement it is estimated that twenty (20) new grants will be awarded by September 30, 1997**.

Challenge Grants are five-year awards, and each applicant must propose five years of activity. Grants will range from $250,000 a year to $1,500,000 a year, with the average being $900,000 a year for five years. Applications that exceed $ 1,500,000 for any year of the five year project, and applications proposing less than five full years of work, will not be considered (these applications will be returned to the applicant without review).

Each application must be submitted by a Local Education Agency (LEA) on behalf of a consortium of partners with appropriate resources to develop innovative applications of technology that will address specific learning needs identified in the application (a definition of LEA appears on p. 9). Each consortium must include at least one local educational agency with a high percentage or number of children living below the poverty line. Moreover, the U.S. Secretary of Education will evaluate the extent to which the assistance sought is designed to serve areas with a high number or percentage of disadvantaged students or the greatest need for access to educational technology. The consortium may also include other local education agencies and private schools, State Education Agencies and institutions of higher education, museums and libraries, hardware manufacturers, software designers, telecommunication firms, and other businesses or appropriate community organizations.

The consortium holds the potential for a creative synergy among its members. The partners should be carefully chosen for their potential to develop innovative applications of technology for improved learning. A consortium's efforts should be clearly designed to encourage ongoing involvement of educators, students, parents, business leaders, and others who are committed to school improvement and education reform. Specific objectives for active participation by each consortium member at each stage of development will contribute to success.

Technology Innovation Challenge Grants are five-year development and demonstration projects. Each consortium should have plans in place to begin start-up activities in year one, including initial trials of new learning content and sustained professional development for teachers (Technol-

ogy Innovation Challenge Grants are not planning grants). Years two and three should be devoted to refinement and expansion of the new applications of technology. Years four and five should support system-wide adoptions that can become self sustaining after the fifth year.

The Technology Innovation Challenge Grant can not be the only source of support for a consortium's work. Under the selection criteria for this competition, applications will be evaluated on the extent to which members of the consortium make substantial commitments for the costs of equipment, technical support, network linkage, telecommunication services, and other resources.

Specific contributions of consortium members should be clearly identified and documented in the application. The projected contributions should be realistic and credible. The application should include convincing plans for long-term support of the innovation after the grant ends. Challenge Grant consortia are encouraged to demonstrate how other community partnerships can adapt and sustain these innovations in their schools on a cost-effective basis.

Funding provided by Technology Innovation Challenge Grants should augment the investments of consortium members by supporting the development of interactive learning content, continuous professional development for teachers, and instructional strategies that integrate new technologies into the curriculum. **Applications in which the primary purpose is to equip schools, build networks, or obtain operating funds for existing systems have not been successful in this competition in the past.**

Consortium commitments may be augmented by state or local bond issues and funding initiatives. They may include volunteer activities such as Tech Corps, and Net Days. Additional sources of support may include foundation grants, private corporate sponsorship, and other philanthropic contributions.

Technology Innovation Challenge Grant consortia may draw on a wide range of federal government sources for support. For example, with assistance from the U.S. Department of Education, communities across the country have developed district-wide and state-wide school reform plans to meet the National Education Goals, and these plans provide an ideal context for demonstrating the use of new technologies to improve learning. Other U.S. Department of Education programs may contribute to the success of a consortium's effort, including: Title I of the Improving America's Schools Act; the Eisenhower Professional Development Program; School-to Work Opportunities; Star Schools; the Regional Technology for Education Consortia; the Regional Educational Laboratories, and the Technology Literacy Challenge Fund, which is the companion initiative of the Technology Innovation Challenge Grants.

Other federal agency programs also may complement or strengthen the work of a Technology Innovation Challenge Grant. The U.S. Department of Commerce helps communities to develop telecommunication infrastructure. The National Science Foundation supports the use of technology for improved mathematics and science education. The National Aeronautics and Space Administration funds initiatives to improve the use of space science data in the classroom. The U.S. Department of Housing and Urban Development supports networked neighborhoods and the "Campus of Learners" in public housing. The Department of Health and Human Services is interested in carefully conceived demonstrations of how new technologies can improve learning in Head Start and pre-school settings.

Funds from other federal sources, including those provided through the Technology Literacy Challenge Fund, may not be commingled with Technology Innovation Challenge Grant funds, or counted as costs supported by the LEA or other sources in the budget section of the application, however. The substantive contribution of each federal effort, and the cumulative impact of these activities, should be described in the Technology Innovation Challenge Grant application. But the budget for each federally funded effort or activity must be administered separately.

WHAT CAN YOU DO WITH A TECHNOLOGY INNOVATION CHALLENGE GRANT?

Challenge Grant consortia must begin with a clear vision of how new technologies can improve teaching and learning. Computers and the information superhighway can make significant contributions to a community's goals for education reform if they are an integral part of a comprehensive plan for school improvement. New technologies can enhance school readiness and help all students meet high standards. They can promote continuous professional development for teachers and foster greater parent and community involvement in education. They can reconnect students with their communities, they can smooth the transition from school to work, and they can help develop the lifelong learning skills students will need in our 21st century economy.

Industry may become an even stronger partner for education reform in response to careful planning and well articulated technology needs. Systemwide, and statewide efforts to establish clear education goals and challenging academic standards could help define what educators and families need from computers and the information superhighway. In such an environment, industry partners could assume a leadership role if they work to supply this market with user-friendly, low maintenance systems that are cost effective and easy to scale-up for widespread use.

A Challenge Grant application should make a convincing case that the proposed plan of action is likely to be an effective response to significant education need, and that the consortium partners are the appropriate ones to meet that need. Strong applications have a well defined concept - - an idea for specific learning improvements - - that clearly demonstrates **how** a new technology **will be used** to improve education.

To take a specific example, as part of the effort to ensure all children can read by age 8 or Grade 3, educators, business leaders and community organizations could form a consortium to develop new applications of technology to improve reading and literacy skills for young children. Becoming a competent, self-reliant reader by Grade 3 is essential to future academic achievement and later success in the work force. New technologies with interactive learning applications could give each child access to the power of one-to-one tutoring to improve reading. Computers and electronic networks could increase the participation of older students, and the effectiveness of parent involvement in literacy instruction.

To work with these technologies effectively, teachers and students need access to interactive computer applications and networked learning resources that can generate high quality content in all of the core subjects. The creation of this

new content should be bolstered by continuous professional development for teachers and sustained support for students, that goes beyond the acquisition of generic computer skills to include mastery of technology applications specifically designed to improve academic achievement. Teachers and students must learn to seamlessly integrate these new learning tools into the curriculum. If this professional development and these technologies are embeded in the fabric of work in the school, the teachers and students themselves may particpate in the creation of engaging new learning content that meets high academic standards.

In middle schools, for example, these powerful learning tools can increase student achievement in science and mathematics by elevating the content of instruction and the rigor of student work in these disciplines. It is clear from recent reports that more time on task is not enough. Middle school teachers can use these technologies to take students beyond simple problem solving to in-depth study of the scientific principles and underlying concepts behind the solutions. If they build on this learning through well-focused projects, high school students and teachers can use these tools to gain access to the power of scientific inquiry and mathematical reasoning at some of our best colleges, universities, research institutes, and scientific firms.

In this increasingly networked society, learners of all ages have an opportunity to work with an enormous wealth of knowledge. Teachers and students should be able to use telecommunications to overcome their isolation from a multitude of scholars and rich information resources that could help them improve education. With these tools they can collaborate with their colleagues in classrooms across the country to form new learning communities that no school system could develop on its own.

Linking middle school or high school students with college students and faculty may improve the preparation of young people for postsecondary education. Many students never consider a college education as a real possibility until they have a personal opportunity to become actively engaged with the life of these institutions. Computers and telecommunication networks can be used to strengthen the early preparation of students for college.

Professional development for teachers and the design of more rigorous content should be based on a careful analysis of the learning needs of students, and it should be consistent with the school's curriculum, mission, and professional standards. Teachers, administrators, parents, and community leaders should participate in decisions about the nature of the professional development and the content of the new learning activities.

A teacher's primary educational partners are the students' parents. When families and teachers are in effective communication, students stand a greater chance of success. If parents learn how to use technology effectively, they can bring a vast array of education resources to the home. Parents can extend the time and place for learning from the classroom to the living room, creating new opportunities for sustained study in core disciplines. With similar applications of technology, educators can forge new alliances with business leaders and local agencies that improve education by extending learning into the community.

Most of our students begin their careers directly after high school. These new technologies can be used to improve the transition from school to work. In a networked economy employers must have well-educated employees who make skillful use of information technologies to increase their knowledge and improve their productivity. If these new learning tools are embedded in the day-to-day work of the classroom, they will help students develop the skills they need for successful careers.

Technology Innovation Challenge Grants provide seed money to stimulate the development of promising learning technologies in specific communities. They generate fresh possibilities for software developers, cognitive researchers, education leaders and others to collaborate on the creation of a research-based generation of education software that uses recent advances in cognitive science to support improved learning. If their success is well documented, the most effective practices, and the important lessons drawn from their efforts, may receive widespread use in communities across the country.

But Challenge Grant successes and lessons must be well documented. A carefully designed evaluation plan should be part of each application. It is not enough to promise that an evaluation will be done at some point in the future. A specific section of the application should explicitly describe the evaluation design that will be in place when the grant begins. The plan should establish clear benchmarks to monitor progress toward specific goals, and it should be explicit about how improvements in learning and instruction will be assessed. Developing evidence of effectiveness should not be put off until the last stages of the effort. In a Technology Innovation Challenge Grant, a strong evaluation plan must be a consideration from the design stage onward and information generated by the evaluation should provide continuous feedback for improvement to the project and to the wider education community.

SELECTION CRITERIA

During the Summer of 1997, external panels of experts will review applications in a three tier process, and make recommendations to the Secretary of Education. The review panels are generally composed of individuals representing three broad perspectives: (1) teachers who use new technologies in the classroom; (2) administrators with school-wide or system-wide responsibilities for developing effective applications of technology; and (3) researchers and consultants drawn from universities, hardware manufacturers, software developers and telecommunication firms. The Secretary will use two criteria to select applications for funding: "significance" and "feasibility". Is it important and can it be done?

Significance will be determined by the extent to which the project:

(1) offers a clear vision for the use of technology to help all students learn to challenging standards;

(2) will achieve far-reaching impact through results, products, or benefits that are easily exportable to other settings and communities;

(3) will directly benefit students by integrating acquired technologies into the curriculum to improve teaching and student achievement;

(4) will ensure continuous professional development for teachers, administrators and other individuals to further the use of technology in the classroom, library, or learning settings in the community;

(5) is designed to serve areas with a high number or percentage of disadvantaged students or other areas with the greatest need for educational technology; and

(6) is designed to create new learning communities among teachers, students, parents, and others, which contribute to State or local education goals for school improvement, and expand markets for high-quality educational technology or content.

Feasibility will be determined by the extent to which:

(1) the project will ensure successful, effective, and efficient uses of technologies for educational reform that will be sustainable beyond the period of the grant;

(2) the members of the consortium or other appropriate entities will contribute substantial financial and other resources to achieve the goals of the project; and

(3) the applicant is capable of carrying out the project, as evidenced by the extent to which the project will meet the problems identified; the quality of the project design, including objectives, approaches, evaluation plan, and dissemination plan; the adequacy of resources, including money, personnel, facilities, equipment, and supplies; the qualifications of key personnel who would conduct the project; and the applicant's prior experience relevant to the objectives of the project.

In the final award of grants under this program, the Secretary may also consider the extent to which each application demonstrates an effective response to the learning technology needs of areas with a with a high number or percentage of disadvantaged students or the greatest need for educational technology. Sweeping, unsubstantiated claims about the number of low income students or high need communities to be served should be avoided. A well documented plan for meeting specific education needs in these schools and communities should be presented.

ELIGIBLE APPLICANTS

Applications must be developed by a consortium including at least one local educational agency with a high percentage or number of children living below the poverty line. The application must be submitted by a local educational agency, but a single educational agency is not eligible to apply unless it is part of a consortium that may include other local educational agencies, private schools, state educational agencies, institutions of higher education, businesses, academic content experts, software designers, museums, libraries, or other appropriate organizations.

During 1995 and 1996, a total of 43 Challenge Grants were awarded to LEAs in communities across the country. Although these 43 LEAs are not encouraged to reenter this competition as primary applicants, they may consider participating as members of consortia in which other LEAs are the primary applicants. In such cases they are expected to demonstrate that they are not duplicating or overextending work under their current grant.

DEFINITION OF A LOCAL EDUCATIONAL AGENCY (LEA)

An LEA is defined as follows in Title XIV, Part A, of the Elementary and Secondary Education Act, as amended: "...a public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary or secondary schools in a city, county, township, school district, or other political subdivision of a State, or for such combination of school districts or counties as are recognized in a State as an administrative agency for its public elementary or secondary schools." The law states further: "The term includes any other public institution or agency having administrative control and direction of a public elementary or secondary school."

In other words, a local educational agency (LEA) is an entity defined under state law as being legally responsible for providing public education to elementary and secondary students. In some states this may include, under state law, an entity performing a service function for public schools, such as an intermediate service agency (ISA). The application must be submitted by a single LEA, but the LEA is not eligible to apply unless it is part of a consortium.

HOW TO APPLY

Application Deadline: May 30, 1997

Each submission should be concise and clearly written. Each submission should include the five sections of the Application and the six sections of the Appendix listed here.

THE APPLICATION

Each application should have the following five sections:

1. **Title Page:** Use the Title Page form included in these guidelines or a suitable facsimile to cover each application copy.

2. **Table of Contents:** Include a one-page table of contents.

3. **Abstract:** Attach a one-page **double-spaced** abstract following the Title Page (this is in addition to the abstract requested on the Title Page itself). The abstract should mention the problem or need being addressed, the proposed activities, and the intended outcomes.

4. **Narrative:** Although a standard outline is not required, in a narrative of **no more than 25 double-spaced pages, printed in 10 point font or larger,** you should address the selection criteria and the issues discussed in this application package.

5. **Budget:** Use the attached Budget Summary form or a suitable facsimile to present a complete budget summary for each year of the five-year project. Please provide a justification for this budget by including, **for each year**, a narrative for each budget line item, which explains: (1) the basis for estimating the costs of professional personnel salaries, benefits, project staff travel, materials and supplies, consultants and subcontracts, indirect costs, and any projected expenditures; (2) how the major cost items relate to the proposed activities; (3) the costs of evaluation; and (4) a detailed description explaining the funding provided by members of the consortium. Please include project staff travel funds for two trips during each year of the project to Challenge Grant Project Directors' meetings in Washington, D.C.; and two trips during each year of the project to regional Challenge Grant meetings. Each trip will be for three days for up to three persons. At these meetings each Challenge Grant recipient will have an opportunity to strengthen its efforts by collaborating with the other grantees funded in this program.

THE APPENDIX

Each application should be accompanied by an appendix which includes the following six numbered sections:

1. **List of Consortium Members:** List all consortium members, their contact persons, addresses, telephone numbers, and Fax numbers. Similar information should be provided for other sources of support. The roles and contributions of all consortium members should be described clearly within the 25-page narrative. Letters of commitment should be included in this section of the appendix to clearly document the role and contribution of each member.

2. **Project Personnel:** Please provide a brief summary of the background and experience of key project staff as they relate to the specific project activities you are proposing.

3. **List of Application Authors:** Please list all persons who wrote the application, their organizational affiliation, the sections they worked on, and the approximate percentage of the total effort each one contributed.

4. **Evidence of Previous Success:** Include a brief summary of any evaluation studies, reports, or research that may document the effectiveness or success of the consortium or the activities proposed in the narrative section of the application.

5. **Equitable Access and Participation:** Section 427 of the General Education Provisions Act (GEPA) requires each applicant to include in its application a description of proposed steps to ensure equitable access to, and participation in, its federally-assisted program. Each application should include this description in a clearly identified section of the appendix. The statute, which allows applicants discretion in developing the required description, highlights six types of barriers that can impede equitable access or participation: gender, race, national origin, color, disability, or age. You may use local circumstances to determine the extent to which these or other barriers prevent equitable participation by students, teachers, parents or other community members. Your description need not be lengthy, but it should include a clear and succinct description of how you plan to address those barriers that are applicable to your circumstances, and it should support the discussion of similar issues in the narrative section of the application.

6. **Private School Participation**: Private schools may participate in Technology Innovation Challenge Grant applications as consortium members. However, if they do not participate as consortium members, Section 14503 of the Elementary and Secondary Education Act of 1965, as amended, (20 U.S.C. 8893) requires that a Technology Innovation Challenge Grant recipient shall, after timely and meaningful consultation with appropriate private school officials, provide private school children and teachers, on an equitable basis, special educational services or other program benefits under this program. Section 14503 further requires LEAs and educational service agencies to consult with private school officials during the design and development of a Challenge Grant application. Each application should include a specific section in the appendix which describes the consultations that have taken place, and the proposed plans for addressing the needs of private school children and teachers, should a Technology Innovation Challenge Grant be awarded.

OTHER ATTACHMENTS

Other attachments are not encouraged. Reviewers will have a limited time to read each application. Their consideration of the application against the selection criteria will be limited to the five sections of the Application and the six sections of the Appendix listed above. Supplementary materials such as videotapes, CD-ROMs, files on disks, commercial publications, press clippings, testimonial letters, etc. will not be reviewed and will not be returned to the applicant.

PROPRIETARY INFORMATION

Applications may contain innovative technical or business ideas that, if released to the public, could reasonably be expected to cause substantial competitive harm to the consortium member that submitted that information. Bold legends clearly identifying information that a consortium member believes is of a proprietary nature should appear at the top and bottom of each page on which it appears. The U.S. Department of Education will take this designation into account in determining whether this information can be released in response to a Freedom of Information Act request.

HOW TO SUBMIT APPLICATIONS

The deadline for receipt of applications is May 30, 1997. All applications must be received on or before that date. This closing date and procedures for guaranteeing timely submission will be strictly observed.

NUMBER OF COPIES OF THE APPLICATION

All applicants are required to submit one (1) signed original and two (2) copies of the application (including one unbound copy suitable for photocopying). Each copy of the application must be covered with a Title Page (form included in these guidelines) or a reasonable facsimile. All applicants are encouraged to submit voluntarily an additional four (4) copies of the application to expedite the review process. Applicants are also requested to submit voluntarily three (3) additional copies of the Title Page itself. The absence of these additional copies will not influence the selection process. **All sections of the application and all sections of the appendix must be suitable for photocopying to be included in the review (at least one copy of the application should be unbound and suitable for photocopying).**

Mailing Address, and Address for Applications Sent by Commercial Carrier

Technology Innovation Challenge Grants
ATTN: 84.303A
U.S. Department of Education
Application Control Center
Room 3633
Regional Office Building - 3
7th & D Streets, S.W. (D Street, S.W. Entrance)
Washington, D.C. 20202-4725
Telephone: 202-708-8493

Applications sent by mail must be received no later than May 30, 1997. Applications not received by the deadline date will not be considered for funding unless the applicant can show proof that the application was (1) sent by registered or certified mail not later than five (5) days before the deadline date; or (2) sent by a commercial carrier not later than two (2) days before the deadline date. The following are acceptable as proof of mailing: (1) a legibly dated U.S. Postal Service postmark, (2) a legible mail receipt with the date of mailing stamped by the U.S. Postal Service, (3) a dated shipping label, invoice, or receipt from a commercial carrier, or (4) any other proof of mailing acceptable to the Secretary.

Applications delivered by hand before the deadline date will be accepted daily between the hours of 8:00 a.m. and 4:00 p.m., Eastern Time except Saturdays, Sundays, or Federal holidays at the Application Control Center, U.S. Department of Education, Regional Office Building 3, Room 3633, 7th and D Streets, S.W., Washington, D.C. (Telephone: 202-708-8493). **Applications delivered by hand on May 30, 1997 (on the deadline date) will not be accepted after 4:00 p.m., Eastern Time.**

NOTIFICATION OF AWARD

Applicants will be notified by September 30, 1997 whether their application is being funded.

ASSURANCES AND CERTIFICATIONS

Applications selected for funding will require a signed Form ED 80-0013 ("Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace Requirements"), Standard Form SF 424B ("Assurances—Non-Construction Programs"), and Standard Form LLL ("Disclosure of Lobbying Activities") before an award is made.

THE FORMS

The following forms are required in all applications. They may be photocopies as necessary.

- Title Page form
- Budget Summary form

In response to the technology challenges facing American education, President Clinton and Vice President Gore announced the **"Technol**

OMB No. 1810-0569
Form Exp.: 3/00

TECHNOLOGY INNOVATION CHALLLENGE GRANTS

This application should be sent to:
No. 84.303A
U.S. Department of Education
Application Control Center
Room #633, ROB 3
Washington, D.C. 20202-4725

1. Application No.

_____

2. **Employer Identification No**.

3. Legal Applicant (local educational agency)

Legal Applicant Name

Address (Complete)

Congressional District(s)

4. Project Director

Name and Title

Address (Complete)

Telephone:_____ _____

Fax: _____ _____
Area Code Number

5. Federal Funds Requested:

1st Year _____ 4th Year_____
2nd Year _____ 5th Year_____ ____
3rd Year _____ TOTAL _____

6. Consortium Members (other than Legal Applicant):
Fill in NUMBER of each.

_____ Other LEA ____ Institution of higher ed.
_____ SEA ____ Other non profit
_____ Library ____ For profit firm
_____ Museum ____ Other

7. Duration of Project
Starting Date: _____
Ending Date: _____
Total Number of Months: 60

8. Student Population Directly Benefiting from the Project per Year

9. Number of Teachers Directly Benefiting from the Project per Year

10. Application Title

11. Brief Abstract of Application: (Do not leave this blank)

12. Certification By Authorizing Official

The applicant certifies to the best of his/her knowledge and belief that the data in this application are true and correct and that the filing of the application has been duly authorized by governing body of the applicant.

Name_____**Title**_____**Telephone**_____

Signature_____ **Date**_____

TITLE PAGE FORM

Instructions for Completing Title Page Form

DO NOT FORGET TO HAVE THE FORM SIGNED

ITEM 1. LEAVE BLANK -- FOR OFFICE USE ONLY

ITEM 2. EMPLOYER IDENTIFICATION NUMBER: Enter the unique 12-digit number assigned to your organization called the Federal Identification Number. It can be obtained from your budget office. NOTE: No grant can be awarded without a Federal Identification Number. If you do not have one, you should initiate the process to obtain one by calling Ms. Kim Nguyen at (202) 708-9268.

ITEM 3. LEGAL APPLICANT: Enter the name and complete mailing address of the local educational agency which will serve as the legal applicant (fiscal agent). When more than one institution or agency is involved, enter the name of the one which will be responsible for budget control. NOTE: Acknowledgments of grant awards are sent to this address. Remember to complete this section fully.

ITEM 4. PROJECT DIRECTOR: Enter the name and complete mailing address of the Project Director or Co-Directors (fiscal agent). If no one has been selected, so indicate and enter the name of the person who can be contacted to discuss the programmatic aspects of the project. NOTE: Name and address listed here will be used to mail notifications of application status. Do not forget to include the telephone number. Both this address and the Legal Applicant address should be detailed. Remember to complete this section fully.

ITEM 5. FEDERAL FUNDS REQUESTED: Enter the amount of Federal funds being requested in each year of the project. Under "TOTAL" enter the cumulative amount requested for the duration of the project.

ITEM 6. CONSORTIUM MEMBERS: Include the number of each type of consortium member organization included in the consortium.

ITEM 7. DURATION OF THE PROJECT: Enter appropriate starting and ending dates.

ITEM 8. STUDENT POPULATION DIRECTLY BENEFITING FROM THE PROJECT PER YEAR: Simple student count as of Fall 1996 will suffice.

ITEM 9. NUMBER OF TEACHERS DIRECTLY BENEFITING FROM THE PROJECT PER YEAR: Enter the number of teachers.

ITEM 10. APPLICATION TITLE: Self-explanatory.

ITEM 11. BRIEF ABSTRACT OF APPLICATION: Keep concise and confined to the space provided, but in no case should you leave this blank. Also see instructions under "How to Apply: Application Content" for submitting a separate one-page abstract.

ITEM 12. CERTIFICATION BY AUTHORIZING OFFICIAL: Enter the name, title, and telephone number of the official who has the authority both to commit the Legal Applicant to accepting Federal funding and to execute the proposed project. **Submit the original ink-signed copy of the authorizing official's signature.**

5 Year Budget Summary

(YEARS 4 AND 5 ARE ON THE BACK OF THIS FORM)

Budget Item

YEAR 1

Budget Item	Requested	Support by LEA or other sources	Total
A. Direct Costs			
1. Salaries (professional & Clerical)			
2. Employee Benefits			
3. Employee Travel			
4. Equipment (purchase)			
5. Materials & Supplies			
6. Consultants & Contracts			
7. Other (equip. rental, printing, etc)			
8. Total Direct Costs			
B. Indirect Costs			
TOTAL			

YEAR 2

Requested	Support by LEA or other sources	Total

YEAR 3

Budget Item	Requested	Support by LEA or other sources	Total
A. Direct Costs			
1. Salaries (professional & Clerical)			
2. Employee Benefits			
3. Employee Travel			
4. Equipment (purchase)			
5. Materials & Supplies			
6. Consultants & Contracts			
7. Other (equip. rental, printing, etc)			
8. Total Direct Costs			
B. Indirect Costs			
TOTAL			

Note: Items 1 through 7 are budget line subtotals that are to be described in the Detailed Budget.

Budget Summary (continued)

Budget Item	YEAR 4			YEAR 5		
	Requested	Support by LEA or other sources	Total	Requested	Support by LEA or other sources	Total
A. Direct Costs						
1. Salaries (professional & Clerical)						
2. Employee Benefits						
3. Employee Travel						
4. Equipment (purchase)						
5. Materials & Supplies						
6. Consultants & Contracts						
7. Other (equip. rental, printing, etc)						
8. Total Direct Costs						
B. Indirect Costs						
TOTAL						

Note: Items 1 through 7 are budget line subtotals that are to be described in the Detailed Budget.

APPLICATION PACKAGE CHECKLIST

APPLICATIONS MUST BE RECEIVED NO LATER THAN MAY 30, 1997

CHECK:

o The Application Title page has been completed according to the instructions on the back of the title page.

o The Application Title page has been signed and dated by an authorized official and the signed original has been included with your submission.

o **SUBMIT ONE ORIGINAL PLUS TWO COPIES OF THE APPLICATION AND THE APPENDIX (INCLUDING ONE UNBOUND COPY SUITABLE FOR PHOTOCOPYING), PLUS FOUR VOLUNTARILY SUBMITTED ADDITIONAL COPIES. EACH COPY SHOULD INCLUDE THE FOLLOWING SECTIONS:**

The Application:
o the title page (page 1)
o table of contents (page 2)
o an abstract (page 3 - one page maximum)
o a narrative (up to 25 pages double-spaced)
o the budget summary form,
and a detailed budget justification

The Appendix:
o list consortium members
o list project personnel
o list application authors
o evidence of success
o equitable participation
o private school participation

o **In addition to the above, include three (3) additional copies of the title page.**

ADDRESS AND DEADLINE DATE:

Technology Innovation Challenge Grants
ATTN: 84.303A
U.S. Department of Education
Application Control Center
Room 3633, Regional Office Building - 3
Washington, D.C. 20202-4725
Telephone: 202-708-8493

REMEMBER: Applications mailed or sent by commercial carrier must be received by May 30, 1997. Hand delivered applications must be received no later than 4:00 p.m., Eastern Time on May 30, 1997.

THE TECHNOLOGY LITERACY CHALLENGE

In response to the technology challenges facing American education, President Clinton and Vice President Gore announced the **"Technology Literacy Challenge"** on February 15, 1996. The Challenge calls on business and community leaders to join forces with educators to guarantee every student in America can use computers and the information superhighway to prepare for responsible citizenship and productive employment in the 21st Century. The Technology Literacy Challenge is targeted at four concrete goals: equipping all classrooms with modern computers; connecting all classrooms to the Internet; developing engaging software and networked learning content to help all students meet high standards; and preparing all teachers to integrate these new technologies into the curriculum.

The U.S. Department of Education is implementing the Technology Literacy Challenge through a two-part strategy consisting of: the "Technology Literacy Challenge Fund" and "Technology Innovation Challenge Grants." These twin initiatives strengthen the capacity of local partnerships to improve education by helping them to: ensure new technologies support high quality learning, accelerate the use of proven technology innovations in education, and provide equitable technology access for all students.

The **Technology Literacy Challenge Fund** provides formula grants to state education agencies. These grants help them implement state-wide technology plans through competitive funding to local education agencies that are using new technologies to improve schools. For more information about the Technology Literacy Challenge Fund you may contact your State Education Agency directly, or contact the U.S. Department of Education at: (202)-401-0039. You may also call 1-800-USA-LEARN, or go to the U.S. Department of Education Home Page at:<www.ed.gov/Technology> to receive additional information about U.S. Department of Education technology initiatives.

Technology Innovation Challenge Grants complement the work of the Technology Literacy Challenge Fund by developing and refining new applications of technology that make significant contributions to school improvement. This year, states and local school systems will invest more than $4 billion in new technologies for schools. But, these investments will be worthless unless teachers and students know how to use these tools effectively to improve education. As development and demonstration testbeds, Technology

Innovation Challenge Grants generate new learning applications and proven practices that may be successfully adapted in schools and communities across the nation. Challenge Grants buttress local investments in computers and telecommunications by helping educators ensure that new technologies pay off in improved education for the 21st Century.

For example, through a technology learning collaborative in a Midwestern city hundreds of teachers and students are engaging in computer based learning activities to elevate the content and rigor of instruction in mathematics and sciences. In model classrooms that are being duplicated throughout the school system, teachers working with student teams are learning to use classroom-based workstations with multimedia capability, video capacity, and full Internet service. Strong home-school connections, and active partnerships with community centers and business firms support students who become engaged in mathematical problem solving and scientific inquiry grounded in real-life settings. The consortium has 16 active members, including a major computer company, an architectural firm, an educational research laboratory, four institutions of higher education, the local cable provider, the State Board of Education, several community organizations, and a commercial scientific research company. These consortium members are joining forces with the schools to marshal the expertise and resources needed to transform classrooms into information age learning centers. The consortium is amplifying the impact of the Technology Innovation Challenge Grants by generating matching commitments that exceed the value of federal funds awarded through the grant.

An urban school system on the Great Plains is connecting its classrooms to major museums across the country to develop networked learning content that integrates the arts with core subjects including history, mathematics, science, reading and writing. Building on a strong professional development plan, which includes training by industry experts, teachers are creating engaging Internet based learning activities in the arts and other core disciplines to help students meet challenging academic standards. The program has stimulated cross-state partnerships with rural school districts that will be replicated throughout the country. A consortium with over 20 members draws on the resources of nationally recognized museums, the State Education Department, state and national arts associations, multimedia companies, colleges, and as many as 100 schools serving urban and rural youth across the state.

A Technology Innovation Challenge Grant to five rural school districts in a southern state is making significant contributions to state-wide educational practice and policy. Built on the State's Goals 2000 effort, this systemic school reform strategy is linking low-income rural communities across the state to new learning resources that meet high standards for student achievement in core subjects. To increase low income student access to educational technology the initiative is providing educational opportunities to students and parents at more accessible times in schools and community centers that maximize building use and the technology infrastructure in under-served communities. Challenge Grant school leaders collaborated with State education leaders to draft the State Plan for Educational Technology, which was quickly adopted by the State Board of Regents. The Governor has drafted legislation to provide additional statewide funds for technology infrastructure under this plan. A Governor's Commission then joined forces with the State Department of Education and the Challenge Grant leaders to convene state implementation meetings attended by all 66 school districts and over 600 educator and business partners in the State.

These stories are being replicated in dozens of communities every day. A total of 43 Challenge Grants were funded during 1995 and 1996. These grantees will eventually work with consortium partners in approximately 360 other school districts across 26 states. It is estimated that 200 business partners are participating in these consortia. One third of these businesses are information technology, software, or telecommunication firms who are joining forces with educators to develop user-friendly, low maintenance, educational applications of technology that are cost effective and easy to scale up for widespread use. A total of 90 colleges and universities are members of these consortia along with dozens of museums, libraries, research institutes, and others that are bringing new learning opportunities to our teachers and students. Over the five year life of the awards these consortium members are projected to make total matching commitments that will exceed the value of federal Challenge Grant funds by well over three-to-one. As catalysts for school improvement, Challenge Grants are supporting a creative synthesis of ideas generated by software developers, cognitive researchers, telecommunication firms, hardware manufacturers and others who are working with teachers and students to create new learning communities for improved learning.

Technology Innovation Challenge Grants
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The cover collage of World Wide Web Home Page logos was composed by Jonathan Ruhe of the Challenge Grant Staff. These logos represent 16 of the 43 Challenge Grant projects funded to date.